DOCUMENT RESUME

ED 363 377 JC 930 514

AUTHOR	Carpenter, Don A., Ed.
TITLE	Focus: A Forum on Teaching and Learning in Utah Community Colleges.
INSTITUTION	Utah System of Higher Education, Salt Lake City.
PUB DATE	Sep 93
NOTE	38p.
AVAILABLE FROM	Utah System of Higher Education, 3 Triad Center, Suite 550, Salt Lake City, UT 84180-1205.
PUB TYPE	Viewpoints (Opinion/Position Papers, Essays, etc.) (120) -- Collected Works - Serials (022) -- Reports - Descriptive (141)
JOURNAL CIT	Focus: A Forum on Teaching and Learning in Utah Community Colleges; v11 Sep 1993
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Community Colleges; *Computer Oriented Programs; *Computer Uses in Education; Cooperation; Individual Psychology; *Instructional Materials; Mathematics Instruction; Program Descriptions; Teacher Expectations of Students; Teacher Influence; *Teacher Student Relationship; Two Year Colleges; Two Year College Students; Writing Instruction
IDENTIFIERS	*Utah

ABSTRACT

This volume of an annual publication concerning issues relevant to Utah's two-year colleges provides the following articles by community college faculty on instructional issues and methods: (1) "Teaching Real-World Math Concepts in an Introductory Algebra Telecourse," by Loretta Palmer; (2) "Collaborative Learning in the Community College Classroom," by Steffeny Fazzio; (3) "The Case for Case Studies," by Gary T. Ward (an exploration of the merits and drawbacks of case analysis, with a description of its techniques and validation); (4) "Understanding the 'Irrational Student,'" by Michael Kowalski (suggesting that rational thought is relative and that teachers must strive to understand "irrational" students); (5) "Cross Cultural and International Curricula Enhancement: Meeting the Needs of Utah Students," by Ron Hammond; (6) "Teaching the Intangibles," by Karen Templeton (offering suggestions for nursing educators on encouraging students' curiosity, helping them trust their own interpretations of the findings of health assessments, and teaching them to practice empathy, to experiment, and to be colleagues in learning); (7) "From Quiet Writing to Multimedia: Innovations in English," by Lee Ann Mortensen and Chloe M. Nichols (a discussion of computer-assisted methods of teaching writing); and (8) "Leadership and Third-Order Change," by Pamela Gardner (an analysis of changes in the modern world based on the contradictions established in chaos theory). (MAB)

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Teaching Real-world Math Concepts in an Introductory Algebra Telecourse

By Loretta Palmer

"On Wednesday morning Rosemary went to the hardware store. After purchasing a new saw blade she put $1.85 in change into her pocket. She had one more dime than she had quarters. What day of the week did she use her credit card to purchase mahogany and ebony from the lumber yard?

Obviously, math questions like this make little sense, but to many students the math questions found at the end of the chapter in some textbooks seem to fall into the same category of bizarre, contrived word problems. Adults punctuate many of their assignments with statements like, "If I knew how much money the coins totaled, then I would take them out of my pocket and count them to see how many quarters and dimes I had. I wouldn't create a massive algebra problem," or "I've been working for 10 years and I haven't had to factor one equation, let alone use the quadratic formula."

A similar refrain is found in college classes: "When am I ever going to use this stuff?" The truth is that most workers, professionals, and thinkers, seldom have to use the quadratic formula or FOIL two binomials in their offices or at home. Plumbers and ambulance drivers don't have to factor polynomials. (Burke p.14) Standard algebra problems which deal with age, coins and distance have little to do with reality yet they seem to be proliferated from one text to the next. Instead of analysis, these problems create anxiety and frustration in our students. Instead of improved reasoning, we often see reticence and reaction.

Instructors need to teach with applications which build bridges between concepts and students' experiences instead of erecting barriers to math education. Learning situations must be designed to allow students the opportunity "to solidly connect the new material with existing ideas in the learner's cognitive structure." Thus we should allow our students to "relate and to reconcile" new information with what they already know and understand. (Joyce, p. 73)

To allow students to focus their energies on the learning task and not on internal efforts to minimize the importance of the material, instructors should rethink their presentations to allow for an initial application which would direct students' attention to the material instead of a terminal word problem. (Gagne p. 292) This approach is sometimes contrary to the standard scientific approach of: rule, example, feedback and application. In many math text books, it appears that the purpose for the rule is often buried at the end of a chapter or section and stresses reasoning or an approach which is atypical of students' experiences.

While teachers are urged to teach from concrete experience to abstraction (Lee, p. 13), most math textbooks begin with theories, properties, and rules after which exercises are presented. The problem which this presents is clear: when abstract rules and concepts are taught first, removed from real-world connections, students have no way to ground the concepts. This is called "disembedded learning."

Math Applications

A shift to meaningful applications was sought in designing an introductory algebra telecourse. For-

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mulae from the work world were used which had some meaning to adult students. Problems selected for the telecourse needed to have two characteristics:

1. Be understandable. This does not mean simple or contrived. Broad rules should focus on examples from many fields.
2. Be relevant and applicable. (Burke p. 15)

In the spring of 1992 I challenged the students in my algebra classes to be co- researchers with me to search out real math applications. We began the search for examples which fit these criteria. Students were instructed to search out and find applications which might be used by traffic officers, medical examiners, waste water engineers, and people in other occupations.

The search for examples was difficult at first. Students were asking their employers, cohorts, and acquaintances, if they ever used algebra in their work. They were repeatedly given the same answer: "No. I never use algebra." We changed tactics and asked the students to pursue *any* use of numbers in their own experiences and those around them. We began to get a trickle of suggestions.

I contacted as many of the students' sources of math applications as I could. I suddenly became aware that most students and employees are lead to believe by their instructors and employers that the numerical manipulations which they perform are not algebraic. An instructor in trades and technology suggested that students use algebra all of the time, but teachers don't call it by name because they are afraid the term might scare the students away.

A good example of this phenomena is a detective in a Utah city police department. She explained the use by investigators of three different formulas at a scene of a traffic accident. As we discussed the uses of that formula, it became apparent to the students in the telecourse that she was using three different forms of the same formula. She found it necessary to memorize the formulae. If the detective had algebraic skills to move from one form to another, it would have saved her a considerable amount of effort and memorization.

It became evident that most professionals did not "create" equations. Most often, employees worked through formulae previously developed for specific situations. The skill came in know how to use the particular equations or to determine the necessary information. It is like the difference between being a computer programmer and being skilled in a software program. Both are valued approaches.

The discovery of algebra application in actual use opened a new perspective to students in my classes. Because of this change in focus, students discovered the power in even the most basic algebraic concepts. These concepts acquired new meaning and were not topics merely to be endured for course grades and a graduation diploma.

Other examples of real- world math applications which we have found were adapted for use in the telecourse curriculum. The course was organized around these topics:

Basic Concepts: Sports and games
Linear Equations and Inequalities: Reconstruction after disaster
Graphing and Linear Systems: Environmental issues
Exponents and Polynomials: Study topics
Factoring: Nutrition
Rational Expressions: Aviation
Roots and Radicals: Police investigation and forensics
Quadratic Equations: Country music, radio and rodeo

Guest Illustrations

Each lesson began with a guest or other vivid illustration of an application before the math principle was taught in detail. We invited a wide variety of guests to appear in the course, including among others, a football quarterback, a pharmacist, a helicopter pilot, a banker, a zoologist, an ecologist, a musician and a medical examiner. Students learned what math principles were required to stabilize a helicopter in flight, to estimate a deceased person's height by examining leg bones, to calculate interest in a bank loan, to provide safe drinking water, etc.

At the end of the telecourse, students volunteered their assessment that for the first time they could see the wide application of math principles in actual work experience.

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Collaborative Learning In The Community College Classroom

Steffeny Fazzio

Group work produces nothing but chaos—desks pushed around, books slamming to the floor. And the students always get loud and rowdy. I like order in my classroom.

It takes too much time to come up with activities and to train students to work together. I have too much material to cover and not enough time as it is. Lecture works best for me.

Sound familiar? Many instructors are not aware of what collaborative learning—students working with each other in large and small groups on activities and projects designed to foster learning—has to offer them. Their students often respond to the idea of collaborative learning with similar comments. Providing collaborative learning experiences in classrooms *is* time consuming, requires careful planning and development, and does not result in classrooms where students face forward in quiet,. orderly rows. However, study after study shows that when students work together, the responsibility for learning shifts from instructor to student, empowering students as they become active rather than passive learners. As a result, their learning becomes richer and more exciting with longer retention than it does in instructor-centered classrooms (Spear, Preface). In an attempt to show the value of collaborative learning, this paper will describe three collaborative learning assignments used at SLCC.

When I first began teaching, my classrooms were primarily instructor centered: lectures followed by assignments designed to reinforce the concepts I had just presented. Over the last few years, I have moved to a more student-centered, workshop approach to teaching. One way I have made this change has been by developing and adapting collaborative learning assignments for each of my courses. Students still cover the same material, but now they work together in large and small groups on collaborative projects that require understanding of the material. My role has become that of a mentor or facilitator rather than as the "sage on stage," and I feel my students come out of the classes with a working knowledge of the subjects I teach rather than factual information.

Two collaborative learning assignments I use in my classrooms are what I call the Electronic Journal and Peer Groups.

ELECTRONIC JOURNALS — Most successful writers, professional and novice alike, practice their writing, usually by keeping journals. Even though I understand the value of journal writing, I have only just recently been able to get my students to use this strategy effectively. Instead of using the journal as writing practice, recording thoughts, ideas, feelings, and responding to the world around them, my students usually made chronological lists of their daily activities or tried to fabricate the required number of entries the night before the journal was due—sometimes using different colored ink to throw me off track. Hardly the quality learning experience I had hoped to provide.

In an attempt to provide a non-threatening, confidence-building method of getting students to write more, I introduced journal writing as a collaborative activity done on the word processor in my Basic Composition classes this year. Since the word processors these students used are free standing, we had to use disks and the disks had to remain in the computer lab. Each student received a formatted diskette on which I had created the file JOURNAL. On 3 X 5 notecards, they wrote their names and a code name they chose to use for their journals. They then returned the cards to me.

The students were required to write 100-word entries in their own journals each week—recording thoughts, feelings, ideas, and reactions to the

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class—as well as respond "thoughtfully and tactfully" to at least two other student journals. Each entry had to be dated and responses signed with their code names. At the end of each week I recorded their points on the back of the note cards: 100 points for their entries and 50 points each for their responses to someone else's entries.

Once the students realized the security anonymity brings, the majority of them far exceeded the required weekly entries and responses and for the first time they talked about writing being exciting. The collaborative journals provided the students with a non-threatening opportunity to develop confidence and fluency in their writing as I had intended, but the assignment achieved much more and proved to be an effective learning tool. The journals also became a practical and relatively painless introduction to word processing and to Word Perfect 5.1. In addition, students learned to write for real audiences and received honest responses to their own writing.

PEER GROUPS — Another strategy I frequently use in my composition courses is the Peer Response Group. Small groups of students—usually from three to five students per group—read and discuss drafts of their written work, offering suggestions for revising and strengthening their compositions. However, peer groups can be used outside the composition classroom to provide a variety of other collaborative learning opportunities as well. Some of these collaborative activities include:

Brainstorming-students work in small groups to generate as many ideas as possible in a very short period of time to explore assignments, topics, concepts.

Buzz Groups—ten to fifteen minute discussion sessions to explore what was presented in class.

Committees—small groups work on different aspects of topics or concepts and report their results back to the larger group.

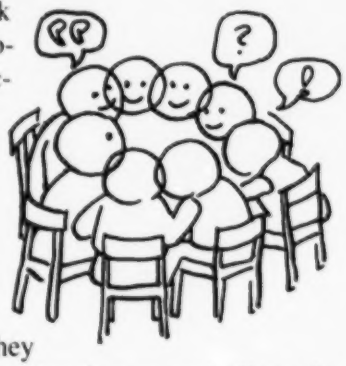
Problem Solving Groups—committees whose purpose is to solve a particular problem or complete a project.

Seminars—students examine an idea, a topic, or an issue to develop conclusions, propositions, or proposals.

Research into peer groups indicates that groups comprised of odd-numbered members are more productive than groups with an even number of members. Size should be limited to between three and seven students per group, depending on the collaborative assignment. For some tasks, three students may not be enough while with others, five or seven group members may be too many.

Some instructors allow students to self select their groups. Initially, however, until students become used to working together, many instructors prefer to form the groups using various criteria: ability, interest, compatibility, etc.

For peer groups to be effective, assignments must be clear and the groups need to be provided with a task or purpose, such as a presentation, demonstration, or discussion.



Small group work offers enormous potential to the instructor as small groups have many of the advantages of whole class discussion activities without the disadvantages of large size and unwieldiness. They encourage a conversational tone and allow the sharing of ideas and common learning. Most importantly, they foster conversational autonomy by placing the instructor outside the group in the role of coach (Tchudi 277).

Collaborative Research Papers

Another collaborative learning experience that I see as having exciting educational potential in a variety of disciplines was recently introduced to me by a colleague who has students write collaborative research papers to demonstrate their understanding of the material researched. Each student chooses someone from the past they are interested in learning more about: a "fascinating character

with adequate research material available" (Blackburn).

When the research is complete, students work in pairs to create the paper—a conversation which reveals the information gathered during the research through description, narration, and dialogue. The purpose of this particular collaborative assignment is

> to teach extended dialogue which reveals "full-round" characters; requires research and accurate documentation using the MLA style—including a formal bibliography; builds on . . . descriptive writing techniques . . . ; develops a theme/motif between the chosen subjects; demands critical thinking skills which require sorting and synthesis of research. (Blackburn)

Although this is clearly a composition assignment designed to help students learn specific rhetorical concepts, it could also be an effective method of demonstrating understanding and synthesis of material in other courses: examining different eras, cultures, attitudes, concepts, processes, and so forth. Specific guidelines, requirements, and evaluation criteria would be determined by the purpose of the research. For example, students could research musicians, artists, scientists, or historical figures, and then work collaboratively to create dialogues. I would much rather read conversations between Martha Washington and Hillary Rodham Clinton, Bach and the Beatles, FDR and Clinton, today's geneticist and Gregor Mendel, or Darwin and Carl Sagan than a dry report on any one of these individuals or their achievements.

These collaborative learning assignments unquestionably show that providing students with collaborative learning opportunities requires much time and effort by an instructor. Each activity requires at least as much time and effort to develop as it takes to prepare lectures and usually more. But my experiences have been that the results are well worth the work involved to develop or adapt, implement, and evaluate collaborative learning activities, because the outcome is active student involvement. Our charge is to offer students opportunities to think about and work with the material we present. Learning should be their responsibility.

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The Case for Case Studies

Gary T. Ward

Business students at the community college level often suffer a deluge of theory and a drought of application. The plethora of concepts, principles, theories, doctrines, etc. often overwhelm students to the point of exasperation. "How," they cry, "do I apply all these concepts? What does this theory really mean in the marketplace? What application does this principle have in solving management/marketing/business problems?"

We need to assist and direct students to effectively apply business principles to solve business problems. If we don't, they—along with us—won't be able to see the forest for the trees. Case study analysis is the bridge to use when crossing from business theory to business reality.

Pros

Using case studies to teach business students is not new. Developed and refined by the Harvard School of Business, case study analysis has a proven record of helping students apply theories to real problems.

Case studies allow students to acquire the integrative problem solving competencies necessary for business success. If students are not given an opportunity to explore the decision making process, they never acquire the skill nor confidence to be effective business leaders.

Another benefit of case studies is minimal business risk. The problems students solve with case studies are real enough—but with one important difference: the risk of losing money for a business is zero. This "no risk" scenario is another critical device for developing confidence in future business leaders.

A person's fear of failure will paralyze action. The greater the risk involved, the greater the paralysis often becomes. However, with case studies, students are allowed to succeed—**and fail**—often. As more case studies are tackled and more effective solutions worked out, a student's trust in his/her rational ability to solve problems increases rapidly. Without training in case studies, these same students will fail where it counts—in the work place of the 21st century. And with that failure will not only come a possible job loss, but lost economic opportunities for the nation as a whole.

An additional advantage of the case analysis approach is the opportunity it gives students to work either individually or as part of a team. The team method is particularly beneficial in teaching students the importance of cooperation and common goal setting. Team building skills are sorely lacking in many graduating students, and its absence is continually (and loudly) vocalized by the business community.

Cons

There are objections to the use of case studies in business programs at the community college level. These objections can be categorized as constraints: A limitation of appropriate case material, extensive instructor preparation time, and inadequate student readiness.

In the past, case studies were targeted toward the university student at the upper division or MBA level. These case studies were not part of a required text, but separate, supplemental material that involved extensive analysis—too demanding and difficult to adapt for lower division students. Today, however, most new business texts (especially those at the community college level) incorporate appropriate case study material throughout the entire course of study.

These text-based case studies or "mini" business consultations are effective tools in getting students to think about what they have learned and applying it to solve a problem. For those few cases deemed too complex for the student's ability, the instructor can quickly adapt the text-based material to focus

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attention on only one or two items of importance. This still allows the student to participate actively as a "business consultant" with decision-making responsibilities.

Prep time is always a concern for instructors, and doubly so for those attempting to use case studies as a resource for student learning. But there is a distinct advantage for the business instructor in using case studies: the instructor continues to learn. Case studies are not just for the student. As the instructor analyzes a particular case, his/her own skills, knowledge, and understanding of business principles is strengthened. And as that continual learning process takes place, the time involved in case preparation does shorten.

It should also be noted that it is not necessary to reinvent the wheel. Most case studies have a timelessness about them. There are certain business "favorites" that continue to challenge students and instructors alike without requiring extensive new preparation time.

Student readiness is the last constraint to applying the case study method at the two-year post-secondary level. Although this barrier appears formidable, case study success depends more upon the instructor's approach to case analysis than any innate student aptitude.

The biggest stumbling block for student mastery of the case analysis method is where to begin. This is where the instructor plays the crucial role of teaching case techniques that will train the student in analysis, problem solving, and decision making.

Case Analysis Techniques

A handout on how to analyze a case and at least two or more class discussions should be used to "jump start" student skills in the case approach. With the instructor's guidance, a sample case should be thoroughly evaluated. Plenty of opportunity should be given every student to work independently and as teams in solving the sample case.

The following should be covered in the handout, discussion, or sample case analysis:

1. Students should quickly read the case once to become acquainted with the situation in which the business organization finds itself. On the second reading, students should take notes with emphasis on key facts or assumptions about the business problem(s). Students should then determine the relevance and reliability of any quantitative data provided in the case.
2. During the second reading, students should do the following to avoid novice pitfalls:
   - Do not rush to a conclusion without evaluating all the facts.
   - Do not overly "crunch the numbers" so that they make sense.
   - Do not confuse supposition with fact.
3. Case analysis is part problem solving and part decision making. These two skills are acquired through practice—there are no shortcuts. Analyzing and "solving" the case becomes easier if students follow the time-honored approach to problem solving:
   - Define the problem(s).
   - Gather relevant information about the problem(s).
   - Generate ideas and solutions to the problem(s).
   - Identify the best alternative(s) given any constraints.
   - Develop a plan for implementing the chosen alternative(s).
   - Evaluate your decision(s) and the decision-making process.
4. After sufficient time has been given for case study, the student should be prepared for a class discussion or case write-up—depending on the needs of student and instructor. Case write-ups, however, help students formalize their thinking process. Writing is thinking.
5. In the write-up or discussion, students should concentrate their efforts on identifying the relevant business problems and generating solutions to those problems. Although each student will determine what they believe to be the best solution for a case problem, their listing of alternative solutions and why these were not chosen is critical in the analysis

process. It forces the student to make competing decisions and then defend those decisions based on their understanding of the facts.

6. Remind the students that case analysis is not a restatement of case facts. The instructor already understands the case; students should focus their attention on analysis, decisions, and defense of those decisions.
7. There is no single correct way to write an analysis. Case analyses come in many forms —it is more of an art than a science. However, students should understand that any case analysis should have the following within the discussion or write-up:
   - Identification of the strategic issues and problems.
   - Analysis and evaluation of those issues and problems.
   - Recommendations on how to solve those issues and problems.

   Recommendations are developed last in the analysis process, but they should be placed first in any written report. These recommendations constitute an executive summary and solidify the student's understanding of the case and the actions to be taken.
8. Written cases should be typewritten, double-spaced, and approximately five pages long (about 1,000 words max). Less than this, and the student has not thought long enough to gain sufficient benefit from the case. More than this, and the student over-analyzes the problem to the detriment of focused inquiry. (Instructors who prefer class discussion should supplement their evaluations of class participation with an essay quiz concerning one or two of the business problems.)
9. Students should understand that their evaluations will be based on quality and depth of analysis, quality of recommended actions, and defense of those actions. There are no "right" answers. Some are better than others, however, given the application of correct business principles and theories.
10. Students learn more when they share information and insights with fellow students. A case "debriefing" should be conducted for those case assignments that are written. The class discussion that follows allows the students to voice the reasoning behind their decisions. This, once again, strengthens the students' thinking skills and provides important feedback to all involved.

Students exposed for the first time to case study analysis will quickly fail if not given strong guidance at the beginning. Students need to know what questions to ask of the material so that issues can be reasonably explored. The case study outline provided will help students cover the most important bases. Although these questions are directly relevant for a marketing case (my area of concentration), they can easily be adapted for case studies in other business classes.

The Case Proven

The case study method has proven its value at the university level for many years. The advantages of this approach for the two-year post-secondary institution far outweigh any possible constraints that may appear at that level. Community colleges should integrate this effective learning tool into every relevant business course offered, especially those classes where student attainment of higher learning skills (analysis, synthesis, evaluation) are the major goals.

Case analysis gives students the opportunity to think, solve problems, and make decisions. Business leaders across the U.S. decry the current lack of these skills in workers entering their companies. Using the case study approach in the community

college business curriculum will ensure that America's economic engine will continue to be supplied with well-qualified, motivated, thinking employees of the future.

Marketing Case Analysis Outline

The following outline is designed to help students consider relevant questions and issues. It is an outline only—not a complete blueprint of what must be asked, considered, or evaluated in any particular case.

The Organization

What are the organization's mission, objectives, strengths, and weaknesses?
What is the offering? How does it create value for the customer?
What is the differential advantage of the offering?
How has the offering performed in the past? Why?
What is the offering's future potential? What facts lead you to that conclusion?
What decisions must be made to ensure the offering's continued viability?
What business/economic/technological/marketing factors have contributed to the present situation?
What does the company do best?

Industry, Market, and Buying Behavior

What is the nature of the industry? Its conduct and performance?
Who are the competitors? What are their strengths and weaknesses?
How do consumers buy in this industry or market?
How is the market segmented? Why?
What is our target market?
How do we identify our customer's needs?
Do we fully understand our customer's needs?
What markets should be selected and concentrated on?
What is needed for success in this industry or market?

Implementation

What decisions/actions are available to the organization?
What are the costs/benefits of these decisions/actions?
What can the company do? Want to do? Should do? Must do?
Can the decisions/actions be implemented within budgetary constraints?
Can the decisions/actions be implemented within the company's culture?
Given other organizational and market constraints, will the decisions/actions have a good chance for success?

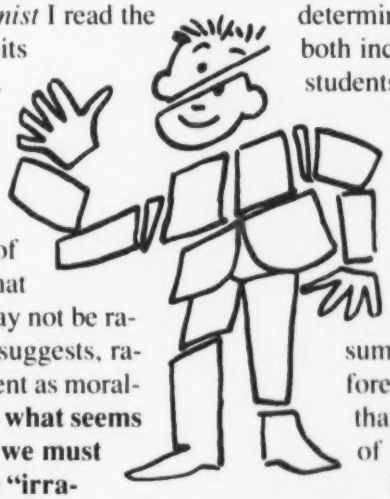
Possible Outcomes

How will the buyer respond to our decisions/actions? Our new offering?
How will the competition respond to our decisions/actions?
Do our decisions/actions satisfy customer and organizational requirements?
What is the potential profitability of our decisions/actions?
Will the decisions/actions enhance or reduce the organization's ability to compete in the future?
Were the decisions/actions good ones based on available information?

Understanding the "Irrational" Student

Michael Kowalski

As a philosophy and English instructor I urge my students to be rational in their writing and thinking. I teach a little logic and all the common logical fallacies. However I have a problem. In the January 1992 issue of *The Humanist* I read the article, "Relativism and the Limits of Rationality" by Thomas Clark. He argues that rationality operates within a system of assumptions that are not rationally justifiable (25). Perhaps once we export rational thought outside of science we face the dilemma that what is rational for one person may not be rational for all. That is, the article suggests, rationality may be as value-dependent as morality. **If what we value determines what seems rational to us, then as teachers we must try to understand the seemingly "irrational" thoughts of our students.**



A Rationality Problem

Imagine a class of forty philosophy students sitting in a classroom with no windows and only one exit, a door to the hallway. As one deathly afraid of fire, I ask the class to devise a *rational* fire escape plan. The following have been suggested:

1. exit single file starting with the row closest to the door.
2. exit by lottery numbers drawn at random.
3. exit by age, oldest go first
4. exit by age, youngest go first
5. exit by gender, females first
6. exit by boldness, the brave go last
7. exit by GPA, highest go first

Now unquestionably these are all rational systems (as opposed to all making a mad dash for the door). They all insure an orderly exit from the classroom. Equally clear is the fact that value assumptions underlie each method, value assumptions that very few groups of forty could ever come to total agreement upon. Plans one and two assume an equality of value (or at least the impossibility of determining superiority) of human life. They both incorporate an element of luck provided students do not know of the plan when they select their seats for the term. Plans three and four assume either those who have lived longer have gathered wisdom valuable to the group or those who are older have less time to live and hence less to lose. Plan five is premised on the sexist assumption that men are stronger and therefore (?) obligated to protect women, or that men are less valuable to the survival of the group (the buck hunt principle). Plan six assumes that courage is of so little value to society that those with it are of least value. Finally plan seven assumes that intelligence measured by academic achievement is of supreme value to society in so far as those who are the brightest show promise of contributing most to the group.

While each plan is equally rational, some seem more to us because they are in harmony with our particular value system assumptions.

Definition

Rational thought can be defined as those ideas which will most likely produce a desired end without violating the principles on which the end is based. Although it works, it is not rational to kill the patient to eliminate the disease he suffers. Rationality operates within a system of assumptions, values, and motives. However our basic values are not rationally justified. We believe because we believe. Just as our perception of the world is funneled by our immediate needs and desires (listen

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for a minute to all external "noise" that you have tuned out as irrelevant as you are reading this), so too is our perception of the world conditioned by unproven and unprovable beliefs and values. A geology instructor recently noted in a discussion of evolution versus creationism that she restricts the use of the word "believe" to those concepts for which she has no evidence; hence she believes in God but not in any scientific theory. She believes because she chooses to believe, not for any rational reason.

If rational thought is a collection of ideas which will most likely produce a desired end without violating the principles (or assumed values) on which the end is based, then it is rational for a religious fundamentalist to seek happiness though absolute devotion to God as revealed in "voices" heard only in one's mind. However for most of us the tragedy in Waco, Texas bespeaks the "irrationality" of such a belief system. We assume that under most circumstances that life is a value to be cherished, yet at other times honor or devotion to God or country are assumed to be greater values.

Relevance for Teaching

Given the philosophical dilemma of judging rational thought based on relative and unjustifiable assumption, what then is a teacher to do? Primarily we must be alert to the rational constructs that underlie the expressions of student thought. We are *not* required to uncritically accept these constructs. (Indeed one of our chief duties should be to call to the student's attention exactly where his or her rational assumptions do not fall within the mainstream of intellectual channels.) Still as tolerant academics trying to model the type of mental inquiry that will diminish prejudice, we ought to demonstrate a willingness to explore the value assumption basis for rational thought unlike our own.

The following example from my teaching experience illustrates the fault I have just cautioned against. A student in English composition was writing an essay based on his experience at a private school in Japan. His thesis was that group identification and discrimination can be beneficial. He noted that when students formed study groups they competed with each other and learned more. In addition he cited the Japanese trade restriction as discriminatory yet beneficial. Then he applied this experience to America where many groups are in constant friction. This friction defeats the common goal of global economic success. He argued that instead of trying for equality and the loss of sub-group identity we should form more competitive sub-groups. This competition would improve everyone's performance. On first reading, I reacted to the idea as *irrational* and *self-contradictory*. How could one reduce conflict by increasing competition? Are not division and discrimination antithetical to a just and successful society? I wrote "poor logic" in the margin and dismissed his ideas. Only later did I stop to consider how some of my own unproven value judgments controlled what type of thoughts strike me as rational on this issue. The following are a few of the value judgements and assumptions that underlie my version of rational thought:

1. Competition increases friction and brings success for some at the price of failure to others.
2. Discrimination that results in unequal treatment of individuals is bad.
3. All groups should be open to any qualified member.
4. A just society will achieve unity by stressing cooperation over competition.

None of the four statements above are necessarily true or false. I have some evidence to support number one, but no reason to believe such is always the case. Statements two, three, and four are fairness principles that "feel right" given that I have internalized the golden rule. However I realize that respectable philosophers including Friedrich Nietzsche and Ayn Rand would disagree on a sound, rational basis.

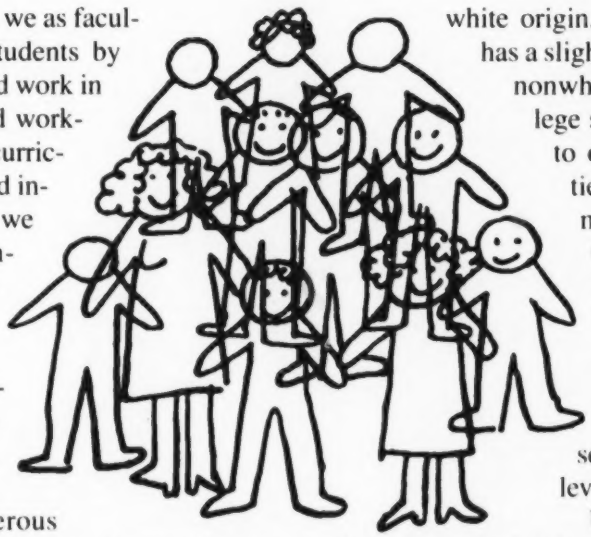
What I should have done was to examine my own thinking and value assumptions. Then I would have been in a position to start a potentially dynamic and provocative class discussion on the issues raised by the conflicting value judgments and principles.

Quality thinking

Bertrand Russell noted that common thought is plagued by vagueness, inconsistency, and unjustified surety. Quality thought, such as that which we are trying to get ourselves and our students to generate, is marked by precision in word choice, consistency in reasoning, and tentativeness in conclusions. Recognition and discussion of the variety of assumptions from which reasoned thought might proceed could be a valuable step toward quality thinking in our classroom as well as a habit that might improve understanding in an increasingly diverse society and increasingly inter-connected world.

Cross Cultural and International Curricula Enhancement: Meeting the Needs of Utah Students

Ron Hammond



Today, more than ever, we as faculty stand to profit our students by preparing them to live and work in a diverse community and workplace. By enhancing our curricula with cross cultural and international perspectives, we create a richer environment where students learn about other cultures and ways of life. More importantly, we facilitate the process of truly understanding others and therefore provide our students with numerous opportunities for successful interactions with people from diverse backgrounds.

Regardless of one's discipline or trade, all faculty can enhance their curricula by incorporating diverse cultural applications into the information they teach. Many may not know exactly where to begin. This paper will address: the current need for cross cultural/international enhancement; the process of facilitating a true understanding; and specific ideas to help answer the question, "Where do I begin?"

Current Needs

We Americans live in an age when exposure to cultural diversity is increasingly part of our way of life. Diversity is found on multiple levels in our society. Campuses around the country have experienced a consistent increase in diversity among faculty and student body since the late 1960's, most notably the increase in women and racial/ethnic groups (D'Souza, 1992). In Utah's higher education system 5 percent of all students are of nonwhite origin. Utah Valley State College has a slightly higher rate at 8.1 percent nonwhite. Many community college students transfer out of state to other colleges and universities, where they will become members of student bodies with as low as 2 percent nonwhite in Vermont and as high as 69 percent in Hawaii (Almanac, 1989-90). This trend of increasing diversity is also present on the state and national level.

Utah's nonwhite population has grown from 1.9 percent in 1960 to 8.8 percent in 1990 (POP., 1993). The 1990 Census provides more than 32 racial categories of Utahns with over 38,000 people listed in the "other" category (Census, 1970-90). Although the increased pace of diversity is slower in Utah, our trend is similar to that occurring in other areas of the United States. The U.S. nonwhite population has increased from 11.4 percent in 1960 to 15.9 percent in 1989. This growth is projected to continue until in the year 2025, when approximately 21.1 percent will be of nonwhite origin (Census, all years).

What does the increase of diversity on so many levels mean to faculty and students? First, as citizens we can expect to live in more diverse communities with neighbors from diverse backgrounds. Students need to be empowered in their community-level interpersonal relationships so that they can move beyond simply "putting up with" or tolerating differences. Through the process of knowing and understanding, they may develop increased behavioral options which in turn may deter conflict and misunderstanding and facilitate meaningful interactions.

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Second, students and faculty can expect to continue to see much diversity on campus and in classrooms. Our campuses are rich with diversity. Both Utah students who have experienced various other cultures and non-Utah-born students coming from other cultural walks of life may be valuable resources for class discussions and lectures. Classroom and campus experiences provide students with opportunities to develop the skills of knowing and working with people who are different from themselves.

Finally, to fully prepare our students to succeed best in today's tough job market they need to have a competitive edge. We can help create that edge by equipping them with tolerance, confidence, and understanding of diversity. Kabagarama (1993:3) said "as we move into the era of globalization, educators need to teach students survival techniques for the global village."

Facilitating a True Understanding

During a recent lecture at UVSC, one of our students asked a guest speaker from New York City a very striking question. He asked, "Here in Utah, we are all white. What can we do here to become aware of other racial or ethnic groups?" I quickly corrected his misinformation about Utah being "all white." Later, I realized that his question indicated two very important factors about his level of understanding: first, he simply did not know how diverse Utah's population truly is; and second, he had a desire to understand but did not know exactly how and where to begin.

Webster (1981) includes three important aspects of understanding in its definition which include: intelligence, appreciation, and sympathy. Intelligence or knowledge is the foundation upon which true understanding is built. It is necessary, but alone is not sufficient. It takes more than a familiarity with data or other tidbits of information to truly understand. Nicholas (1991:18) argues that if we want to gain a true understanding and thereafter provide it to our students, then we must do more than simply observe or explain cultural diversity. His goal is to help students "assume the subjective position of a person in another society, with another view of the universe and another way of valuing things." He provides the following illustration:

> I sometimes tell students they are like missionaries on a bridge looking down at the poor benighted Hindus bathing in the filthy, contaminated Ganges. The student's task, I say, is to learn to look up with pity at the poor missionaries and imagine them bathing in a tiny tub of wretchedly warm water made filthy and polluted by their own bodies. Seeing how each might marvel at the misguided idea of purification held by the other is a first step in understanding real cultural difference.

The key lies in trying to see the world through the eyes of those we study and if possible to try to imagine how we would appear to them; we see us through their eyes! This process not only facilitates gaining the intelligence and appreciation aspects of understanding but also facilitates gaining the sympathetic aspect.

Often, those who are exposed to diversity infrequently or for the first time are faced with a major obstacle to gaining an understanding. The fear of forfeiture of one's values appears to sometimes overshadow the desire to understand. During a recent classroom discussion about open minded versus prejudiced attitudes, a student asked, "do you mean that in order to have an open mind or to understand other cultures I have to accept another way of life as my own?" She was expressing a sincere desire to understand and a legitimate concern about the threat to her personal values system. The answer is simply, no! I provide the following example for clarification: Certain men in India burn their wives to death with little or no legal recourse. Once their wives are dead they can remarry and receive even more dowry money from the next bride's family. Various indicators suggest that dowry burning is on the rise in certain regions (Bumiller, 1990). How is it that women allow themselves to be treated this way and others desire to treat them this way? The relative devaluation of Hindu/Indian women has long existed. Women are considered to be the moral and religious half of men and they are taught to be subservient in a deeply patriarchal and traditional society (Bonner, 1990).

Although understanding the roles and norms regarding women does not reveal the motives for the

dowry burners' inhumane treatment, it does help us to see how women would submit to abuse and death. In this example, analysis of the culture provides a context for understanding how and why such phenomena occur and not necessarily a statement of agreement or acceptance of the behavior. When students come to confidently accept this idea, they become empowered to situate themselves in an increasingly interdependent world; able to analyze, observe, discuss, and even learn from diversity without feeling a threat to their value system.

Where Do I Begin?

I have found that including pertinent information from other cultures has been positively received by students. It has enhanced lectures, discussions, and student assignments. Below are a few guidelines which may help faculty discover where to begin in their area of specialty. The diagram presents a conceptual basis from which one might decide exactly where to begin.

Past, Present, Future

Diversity Within America
Diversity Around the World

In the area of cabinet making1 one could incorporate the concepts presented in the diagram as follows: in the **past**, cabinet makers had relatively primitive tools which required the maker to have or develop certain artistic skills in corners, joint fitting, and other intricate tasks; the **present** technology creates a paradoxical situation in which artisans are capable of mass producing acceptable cabinets but many fear that it may be at the cost of the individual's artistic and craft abilities; there is also much **diversity** that could be incorporated both from **within our own country** and from **around the world**. Today American people seem to show a consumer's preference for either European or traditional kitchen cabinets. There are many region-specific types of cabinets that could be emphasized in teaching these two styles. Other styles could be learned from Asian, Indian, and Mediterranean woods and woodworking styles; the **future** will tell if technology will win over artistic ability or as one cabinet maker stated, "in twenty years they may be hard pressed to find someone with the individual skills to recreate the fine traditionally detailed cabinets which were once so common."

The model presented above is only the starting point. After you have explored your own ideas, brainstorm with other faculty in your area of specialty. I recently attended an international community college conference and met a faculty member who teaches in my discipline. We shared many helpful ideas about teaching diversity, some of which I incorporated immediately. I have prepared a skeletal outline of more specific ideas of cross cultural/international curricula enhancement for various areas of specialty. I based the outline on an article in the Adjunct Mentor by Guerra (1992). This list is neither exhaustive nor comprehensive. But, it may be useful in stimulating further thinking.

Physical and Social Sciences:

Research famous scientists from other countries and explore their culture and its potential positive and negative influences on your discipline. Study folk and tribal medicines or variations of established medical practices such as China's mix of medicinal herbs and acupuncture with western medicine. Investigate fables, legends and folk tales dealing with the creation and evolution of the earth. Compare various geological features around the world and how people have incorporated them into their religions, myths, sciences, and practical daily uses. Compare and contrast physiological and sociological variations in different cultures and how environmental and climatic factors interact

with these. Compare the various economic systems of the world.

Mathematics:

Study concepts of time and space and the cultural variations in the meaning and importance of them. Learn how societies have calculated seasons and lengths of the year. Study the different ways to perform mathematical operations throughout history and across cultures today. Study various teaching philosophies and paradigms which are used by math instructors around the world. Explore how various philosophies influence the practical applications and meanings of math. Learn other forms of money and how to convert them to the American system or vice versa.

Physical Education:

Study and perform the differing organized games, sports, and dances and the value placed on them in various cultures. Discuss the significance of sport and dance in historical civilizations and in primitive civilizations today.

Fine Arts:

Create handicrafts similar to those of the other cultures. Paint murals depicting scenes from differing cultures. Explore the meaning and usefulness of artist and art in various cultures. Explore the official and unofficial sanctioning of artists and their works throughout history.

History:

Cover major periods in a culture's history and how it compares to western historical paradigms. Research education in various cultures. Study the multiplicity of heritages and their impact on America. Study the influence of religion, family, work, education, economics, and government on how and which version of history is recorded.

Trades/Vocations:

Study the importance of particular skills and the influence of culture on how those skills are developed and valued. Discuss worldwide training and job needs in various trade areas. Explore the historical importance of vocations to various formal and informal institutions. Study the use of primitive technology and its application to solving daily problems of various societies.

Business:

Study various management and employer/employee relationships from around the world. Explore the afternoon "siesta" or "Dejeuner" patterns in various countries and how these affect international business processes. Discuss the various political systems, their laws, and the effect these have on daily business practices. Compare the various economic systems and the culture that derives from them. Study current prospects of international business opportunities which until recently were not available to U.S. businesses. Study international accounting practices. Study the marketing processes in various cultures.

Languages:

Read and perform plays or skits from or about other cultures. Discover the influence of other languages on the development of a target language. Read and interpret fables and tales. Discover the commonality of certain stories to many different cultures and the influence these stories have on people.

Religion and Philosophy:

Compare and contrast theological issues from the worlds major religions. Discuss the influences which religions have had on modernization or the lack thereof. Study the power and influence religion often has on the everyday lives of people in various cultures. Compare and contrast western philosophies to eastern and other philosophies. Explore philosophies from remote, more primitive societies both past and present. Discuss how the peculiarities of languages often frame philosophical questions and compare across languages.

In conclusion, we live in an ever increasingly diverse society. Our students need to be empowered, to truly know and understand human diversity without fear or threat to their own value system. Once they have acquired the ability to sympathetically appreciate diversity then we as faculty have established the potential to provide: (1) an expanded perception, (2) increased tolerance, (3) increase resource for conflict resolution and deterrence,(4)

increased insight and wisdom about how our own affairs are conducted, and (5) increased exposure to strengths and weaknesses of different cultures so that we are better for our lessons learned. This paper is merely a starting point. The future of education and its influence on the world will improve because of our efforts in adequately preparing our students to become productive and understanding contributors to their diverse local, state, national, and world communities.

Notes

[1] A special thanks to Robert Steele and Eldin Greenhalgh, Cabinetry & Architectural Woodwork Instructors at UVSC.

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Teaching the Intangibles

Karen Jobe Templeton

intangible: adj. 1. that cannot be touched; incorporeal; impalpable 2. that cannot be easily defined, formulated or grasped; vague. - n. something intangible.

Teaching the voluminous amount of material required for an adequate nursing education can be daunting . . . especially if you have only nine months to carry out your objectives. It is daunting to instructors; it is also daunting to students. We make reading assignments that would dishearten graduate students. Our lectures are packed with theories, facts, instructions, "most importantly's," and "don't ever forget's." In trying to pack as many pieces of information as possible into each lecture, I fear we sometimes lose the student. It becomes so overwhelming, students begin to believe they can't comprehend the material.

In addition to the shear volume of material, teaching nursing can be a difficult challenge for many other reasons. The profession of nursing and the act of nursing are composed of many intangible elements. In those nine months of facts and lecture, we must somehow convey those very illusive intangibles so well that the student will incorporate them into their concept of nursing. Our students do not just memorize facts. They must be able to interpret and utilize those facts in the clinical setting.

They must deal with unkind people, ethical dilemmas, and judgement calls. They must set and maintain standards and be accountable for their actions—actions which may have profound positive or negative repercussions. These learners must learn to teach before they are through learning themselves. They must develop empathy for the sick and injured and curiosity to constantly learn more and stay abreast of the latest information. They must learn how to take care of themselves as the caregiver and avoid burn-out. Theory and hands-on-nursing-skills are only a portion of all that goes into the development of a beginning practicing nurse.

Standard lectures can convey the facts; however, teaching the intangibles requires methods that introduce concepts and allow the students to try out these intangible concepts in a safe environment. What follows are examples and scenarios of teaching methods which I have found to be effective.

Encouraging Curiosity

Curiosity is an important aspect of nursing. When a patient displays an unusual symptom or when a family uses an unusual coping behavior, the nurse who is curious and pursues the source of that unusual behavior will be more effective than the nurse who simply notes its existence. While teaching a student to be curious may be impossible, certain teaching methods can provide situations where the student is stimulated to find out more. When teaching about defense mechanisms, for example, I utilized popular cartoon characters. I made overheads of cartoons where the humor was poking fun at our human foibles and responses. I then asked the students to identify the defense mechanism that was being portrayed. Besides providing the opportunity to laugh together, this method illustrated the concept, opened the poten-

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tial for other examples, and most importantly, stimulated questions. As homework for the next class, I asked each student to bring in a cartoon or news article which would provide an example of a defense mechanism. Many students shared the information with spouses and children and enlisted their aid in this endeavor. Everyone in the class was able to complete this assignment, and many brought in more than one example. Individual students began to identify defense mechanisms being utilized in class and would name them as they occurred. This in itself inspired curiosity in those around them to learn and be able to identify other defense mechanisms. The curiosity went beyond the classroom as students then began to recognize and respond to defense mechanisms in their homes and in the care settings. An interesting aside is that those who had enlisted the aid of their children for the assignment mentioned earlier began to complain that their children were now identifying defense mechanism which the student was using . . . a situation which many students found humorous but irritating.

Trusting Interpretations

Nurses interpret assessment findings continually while providing care for an individual or family. Students must move from simply making assessments to learning to interpret their findings. Then they must learn to actually trust their interpretations and act upon them. One method I used to teach mental health assessment provided an opportunity for the student to go through this entire process.

When we covered mental health assessment we analyzed the aspects of a mental status exam and discussed the importance of observation. We analyzed the importance of body language, considering how something is said vs what is said, and we briefly reviewed therapeutic communication styles. Then I assigned each student to groups of three's. I assigned each group a character of the TV show *Cheers* and gave them specific questions: what observations can you make about the mental status of the character, what defense mechanisms do you see utilized, what significant body language do you observe, and do you see anything that could be construed as therapeutic communication. Then I showed an entire episode of *Cheers*. When it was over, the individuals in the groups immediately began conferring with each other, analyzing the characters, and comparing their interpretations. Each person added their own unique observations. Each group presented their findings to the class, and the class validated or questioned them further regarding their conclusions. The students had now been through part of the process: they had observed, made assessments, and interpreted their findings. Now they were able to test their interpretations against what their peers and instructors had concluded.

The dialogue and discussion were spontaneous and surprisingly insightful. The assignment showed them that aspects of mental health care are applicable outside the psychiatric unit. It also worked to de-mystify mental status exams.

The *Cheers* assignment went one step further. As their out of class assignment I assigned the next evening's episode of *Cheers* as well as the chapter in their texts explaining the DSM-III-R (a diagnostic manual for mental health disorders). The next day's class started out with 10 minutes lecture explaining the axes in DSM-III-R and their function. Then the class was divided into their groups of three again and each group "made a DSM-III-R diagnosis" of their character providing supporting data for why they chose the diagnoses they had. When they were finished each group again shared their conclusions with the rest of the class for validation or further discussion.

Both assignments encouraged the student to make interpretations of what they observed and then find validation or opposition. Unlike the health care setting, there could be no serious repercussions in this environment. The student was free to explore and try out their interpretations and develop a sense of proficiency.

This assignment seemed to surprise them and expose the material to them in such a way that they wanted to know more. They were alerted to the fact that they were unable to separate the interpretations of a particular episode from what they had observed over the years that they had watched the characters on the show. It surprised them to recognize how assessment was an ongoing and sometimes unconscious act.

Practicing Empathy

Empathy is the ability to share in another's feelings or emotions. It is not a topic taught in nursing, but it is utilized by sensitive nurses many times throughout the day. The nurse utilizes empathy to understand non-compliance, to understand grieving, and to understand spiritual needs and differences.

I have found it particularly difficult to teach about spiritual needs in Utah. It is almost impossible to distinguish between religious rituals and spiritual needs. After several years of struggling with this topic, I tried one method which had surprising results. It allowed us to explore spiritual needs while encouraging students to practice empathy. I gave the students a scenario:

> You were on your way to work this morning and on the way were involved in a tragic motor vehicle accident. You have been severely injured . . . as a matter of fact you are not going to make it through the day. You are in the intensive care unit, hooked up to a cardiac monitor and are on a ventilator. The endotracheal tube in your mouth makes speech impossible. You are too weak to write. You are going to die. What ever was left undone when you left home this morning will remain undone. You will not put away any clothes that were left out, you won't do the dishes that weren't done.
>
> Now at this exact moment, what do you wish the nurse who is caring for you knew about your spiritual needs? You can't speak or communicate to her/him. What do you wish she/he could do for you?

I had the students respond in writing on 3x5 cards, not using their names. Then I collected the cards and read the responses back to the class. It was incredibly poignant and much more powerful than all the lecturing I could possibly have done on that topic. The students knew enough about this type of critical care situation to recognize the absolute helplessness of such a patient. This exercise gave them an opportunity to step into that patient's mortality and explore what it meant. I did not anticipate the depth of empathy this exercise would elicit, but the students responded genuinely and immediately. We all came away with a deeper understanding of spiritual needs.

Another important aspect of empathy is in regards to treatment of pain. It is funny how we as humans forget how excruciating pain can be when we have been away from it for any time at all. We need to be reminded periodically. Placing a clothespin on a finger is a ready source of non-harming but incredibly irritating pain that encourages empathy. Half of the students put clothespins on their fingers and their partners explored methods to relieve that pain utilizing only those items which they had on hand; ice, heat, tactile stimulation, etc. I then gave a short lecture on frequently reliable methods of pain control and then asked the students to try out these methods. Mixing the content with the experience seemed to assist retention while promoting empathy. From that lecture forward, I noted an increased urgency among my students to assist patients in pain relief. Not only did they utilize the methods discussed in class, but they also came up with new methods on their own which were effective for their patients' comfort.

Experimentation and the Role of "One Who Knows"

Experimentation is an important aspect of nursing. The nurse employs tried-and-true methods of teaching, easing pain, encouraging health habits, etc., and evaluates their effectiveness. If the results are not the most optimum possible, the nurse experiments to fine-tune those methods or to discover new ones. In order to be effective the nurse must win the trust of the patient and offer these new solutions in a manner that conveys sound judgement and a good chance of success. It is a difficult jump for some students to reach that level of portraying themselves as "one who knows."

I have tried to create situations in the classroom where the student has opportunities for problem solving, experimenting with multiple solutions. I have created cards for a *Pictionary* game using both familiar vocabulary and new nursing terms and concepts. Some words are easy, promoting confidence and a willingness to try. Other words force the student to process concepts in a new way. For instance, when we were studying fluid volume needs I used this game. Words like edema and glomeruli were easy. Words like filtrate and diffusion required the student have a basic understanding of the word and re-process it (sometimes in

multiple ways) for their teammates. In essence they experimented with different techniques to transmit a message, different methods to solve a problem. Games also do a wonderful job of defusing tedium and tiredness; they build camaraderie and build in that self-care aspect of laughing together.

In order to help them grow in the role of "one who knows," I begin in the first week with situations where they present information that they have researched to a small group of students. Soon I have them presenting to the entire class. The next quarter I focus on teaching the patient, then the patient's family. Finally by the third quarter the students each present an inservice to nurses on the units where they are doing their management rotation. By the time this has occured, the student will indeed assume the role of "one who knows" when teaching patients. They have begun to believe in their own ability to assemble, coalesce, and transmit information.

Classroom situations which urge the student to problem solve and develop as "one who knows" can be varied and fun. When studying regulatory needs, I have the students make cartoons for different endocrine disorders, depicting one or more aspects of the disorder. Even those who think they can't draw can do amazing things. I have them draw their cartoons directly onto overhead film then let the class guess what disorder has been portrayed The artist then explains the particulars of the drawing. All of this works together to allow the student to experiment and it involves them in becoming "one who knows" in the "safe" environment of a classroom. Here experimentation is encouraged and no harm can be done, so the student is free to test their own creative boundaries.

Being Colleagues in Learning

One of the intangibles that is sometimes frightening for students is that of becoming an active participant within the discipline of nursing. It is one thing to be a learner, to care about people, to follow directions. It is another to be independently practicing nursing. One thing that I feel goes a long way toward the student taking on that role of practitioner is the attitude of the instructor. It is important to regard nursing students as colleagues in learning rather than recipients of information.

Acknowledging personal areas of weakness and asking the student questions such as "what have *you* read about . . . ?" models continued learning for the student and gives credence to their intellect and abilities. It also lets the student see that no one is perfect or all-knowing, and decreases expectations of "super-nurse perfection" which I feel is a major source of nursing burn out.

With all of these methods I have mentioned, there is the concern of how to make sure you cover all the content if you take the time to be creative and teach the intangibles. That is a valid and difficult question. Reading I have done on the subject and my own experience make me think that when you move the student into the role of colleague in learning rather than recipient of teaching, their overall initiative in the learning process increases. I can say to the class, "We have covered the obscure or difficult aspects of this material in class. You are responsible for the content in the readings which we have not gone over in class. Please come to me if you have any questions." They do come to me with questions on occasion, but they also do more on their own as well. I have observed students searching for more sources of information on a topic when their text did not satisfy their desire to understand. I also use handouts and lecture outlines, so that when we do need to cover large amounts of information content we can go over it together in a salient fashion, leaving time for application or practice experiences as well.

We have all heard many times and know from experience as both learner and teacher that didactic lecture is not the best or only way to promote learning in the student. It does seem hard, however, to break away from that style of teaching. Interestingly, most of the teaching methods which promote learning of the intangibles are non-traditional methods. I have found that the students retain and utilize the content covered in these exercises.

I believe that as students begin the process of weaving the intangibles of nursing into and among the facts and theories, they are more able to perceive themselves as nurses and the transition from student to practitioner becomes a more reasonable challenge. We as nursing faculty can be a strong factor in that transition.

From Quiet Writing To Multimedia: Innovations In English

Lee Ann Mortensen, M.F.A.
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Computer and multimedia instruction, prematurely declared dead by some trade magazines a few years ago, seems to be thriving with college educators today. This is not because teachers are forced to adopt the technology thrown away by business. It is because educators, once given technology, will merge it with trusted methods to create unique classroom experiences. With a generation of media-wise students facing English teachers, multimedia innovation becomes vital for keeping students actively interested in what they have been taught to hate—the written word. Through the use of computer-aided instruction, writing and reading become as fast-paced and interactive as the media-centered world students live in. One reason for this is seen in statistics gathered by the National Training Laboratories in Maine. When a course is taught using the more traditional formats of lecture and reading, students tend to remember 5-10% of the course material. However, when audio-visual teaching is combined with discussion and practice in the classroom, students remember 30-75% of the course material (Figure 1).

Merging a variety of computer-aided instructional (CAI) methods is one way to approach these higher percentages. In other words, teachers using multiple forms of media help students who have multiple learning styles see the writing classroom for what it really is: a place of active written and oral communication, collaboration, and critical thinking. We want to give an overview of the technology English and other faculty can use to augment student learning. Specifically, we will focus on the teaching of narrative as a way to describe how software is used in the UVCC English Department to enhance audio-visual presentation, discussion and modeling, collaborative writing, and self-paced practice. We will also show how research becomes necessary to improve these teaching techniques.

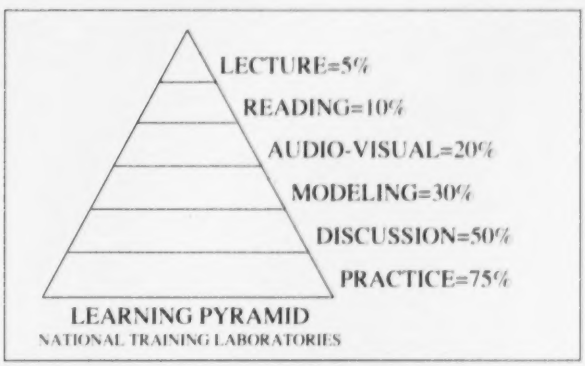

Figure 1 Retention

The audio-visual presentation of narrative can involve a variety of technologies, from the use of CD's and videos, to the combination of these with presentation graphics, like *Word Perfect Presentation 2.0*, to fully integrated digital multimedia, as would be found in such software as *Podium*. The major advantages of integrating the older technologies of video with newer ones like presentation graphics are cost-effectiveness, and for the enhancement of critical thinking and interpretation, brevity and focus. Since timing is essential with these media, it is useful to have analytical guides and questions flashed on a nearby screen at the same time the film itself is running.

Still, many teachers can feel "pinned down" by the use of video. It is so much a "Wabash Cannonball" teaching tool—no changes can be made. Once the film is begun, it must seemingly be run uninterrupted, and the teacher can squirm in frustration, wanting to focus on important points, or interpret a telling moment which is rapidly passing.

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The teacher wants to pin that very moment—and can, with multimedia text comment.

Probing questions about character, action, and theme projected behind the teacher can enhance the student's critical ability while simultaneously allowing enjoyment of the film without teacher "voice over." In this way the teacher becomes performance artist—present, effective, but unobtrusive.

Narrative

As an illustration, the classic film fantasy, *The Red Balloon*, allows for an excellent interpretation of narrative when combined with presentation graphics. Lacking dialogue and a spate of major characters, it allows students to view through a small child's eyes the blossoming of friendship and antagonism and experience in the child's mind a climactic test of loyalty. As narrative is introduced to a class, students can first be shown a customized graphical media show, projected from *Word Perfect Presentation 2.0* on a notebook computer, that quickly introduces narrative. At the same time, to the side on a television, students see the balloon "character" of the film crushed because it will not desert its human friend. Students also experience the boy's sudden isolation, and the astonishing massing of other balloons which cluster to lift him high above Paris. The instructor can occasionally pause the video to help students focus on the concepts of analysis projected behind her on a screen. Students are asked to do three kinds of thinking at once, simultaneous with the action. They must analyze the boy's character, their own preparation for the climax, and the emotional changes of denouement.

After a multimedia presentation, more detailed discussion can follow using another presentation graphics program like *Freelance Graphics 2.0*. Our goal in using presentation software is not merely to enhance a lecture, but to guide a live, interactive discussion that centers on teacher and students alike. As Cooper and Selfe mention in a ground breaking essay on computers and authority, when the teacher is the center of all classroom activities, students tend to question authority less frequently, and this can inhibit their ability to think critically (1990). Thus, in English courses especially, presentations should be used primarily to facilitate and organize meaningful interaction between students and faculty.

The main criteria we use to judge the structure and content of our graphical presentations are based on a balance between teacher and student ideas, as well as a movement from general concepts to specific modeling. We start by putting the general word itself on the screen, like "NARRATIVE," which the students see as they enter in the room. As class starts, the teacher can click a mouse button to move to the next screen which asks "WHAT IS NARRATIVE?" At this early point, the students are already contributing as they define what a narrative would be. *Freelance Graphics 2.0* is ideal for incorporating student comments during class, since the teacher merely has to click on a pre-assigned, bulleted part of the screen, and start typing student responses.

The next screen can then ask students what narratives they have heard or told recently. The teacher may wish to model this orally, or have her own quick example on the screen, like "THE STORY OF MY TRIP TO NOGALES" which can help students think of any trips they have taken, and then share a few stories with the class. Doing this allows students to immediately link the general definition of narrative to a recent event. As the teacher continues clicking the mouse button to reveal new screens, students can be prompted to come up with different categories of stories, like love stories or sports stories, as a way of introduc-

ing genre. Other screens can include the six elements of narrative, like cause and effect, pacing, and description, followed by a series of screens presenting definitions, examples, and questions dealing with each separate element.

After a narrative element is discussed, the teacher can show pictures that suggest a story and have students write down what might happen next on their computers. Also, readings from a textbook like *High-Tech English* by Alex Joncas (1992) can be used as examples along with quick scenes of video, as was described above with *The Red Balloon*. The use of a *Windows* environment is also perfect for skipping back and forth between the narrative concepts in *Freelance Graphics*, and a story written by the teacher or a student in *Word Perfect for Windows*.

Collaborative writing is a popular topic among faculty in English, and with the use of computers, collaboration can seem even more user-friendly. It helps students practice the concepts they learned from discussion and modeling. It also helps students focus more on each other than on the teacher (Cooper & Selfe, 1990).

For example, students may come into a classroom chatting and laughing.

". . . And then I just reached out and threw the whole bowlful out the window!"

The class laughs itself breathless.

Sam, the story teller, is a born "raccoon tour," as they say in the South; with his rubber face and dramatic pauses, he keeps students spellbound in brief chat sessions before class. How does the teacher keep that spellbound, breathless feeling alive as she moves into formal lessons on narrative? Usually, the teacher signals that class is to begin soon, which also means the class should quiet down and focus on the instructor. But this quieting down is exactly what may also quiet analysis and critical thinking by students. What the teacher needs is a link between the impulsiveness of participation and the premeditation of analysis. An exercise used by Peter Elbow and discussed in his *A Community of Writers* can forge that useful link (1989).

A Personal Talisman

The exercise is called "Me and My Gizmo," and the plan is to have students bring to sensory life a small, personal talisman—a dog-chewed tennis ball, or broken earring. The created object will then become the focus of short, imaginative narratives created by other students. Because the "gizmo" is only a trifle, it downsizes the entire exercise, so that students can easily use their imaginations without the constraints of managing complex action or numerous characters.

At the start of the exercise, the student is acquainted with the notion of the personal talisman or object, and asked to visualize it using, again, overhead presentation graphics. Some quality in the semi-darkness of the presentation classroom seems to help loosen creative energies as students write. To help students open up, the teacher can describe her own object first, again modeling for the students as she projects a *Word Perfect Presentation* screen of her own description behind her:

> My object is a mug. Well, not just any mug—this one has a crack shaped like the letter *S*, and you can just feel it with your finger where it starts, but not down at the end, where it is tiny. There's a rough place on the bottom, a little arc about, say, an inch long, and in the very smooth, almost slick glass surface, this always distracts me. There are letters down there, but they are too faint for me to read them. I can also feel the pattern of raised squares-inside-squares, and I often wonder, as I drink my cocoa, what it would be like to be blind, using braille. It's big, too big for any of my coasters. Its name is Roger.

Then the students are encouraged to turn away from the teacher and visualize their own objects, describing them in either with *Word Perfect for DOS*, or in the more interactive environment of an electronic mail package, like *PC Board*. After a specified amount of time, students can do one of two things. If they are working in *Word Perfect*, they can divide into side-by-side pairs, both having full view of one partner's screen and his or her object. They can then ask each other questions, getting the history of the object and reason for its value. If students are writing on PC Board, they can immediately read another student's description by typing in the number of the entry. Either way, informal self-analysis is encouraged as the partner asks questions that help the author add to the original description.

"Say, why did you name your mug Roger?" a student might ask if paired up with the teacher.

"I didn't," the teacher replies. "I said its name is Roger. A person named Roger used to work in my office and he left, and I got his old desk, and I found the mug in one of the drawers. Does that mean I like to have labels, but I like somebody else to make them for me?" The teacher adds notes to this effect in her original projection.

At this point, students then move on to the narrative portion of the exercise by exchanging computer screens, or if electronic mail is used, responding to each other's entries in the "chat" mode. In this way, they compose a number of narrative events, which might naturally grow from the details of the object and its owner. Finally, the student/narrator describes both his partner's object to the class, and the narration which he has developed for his partner's object..

Here is a typical response:

> Thel says, "Jody has this geode slice, she really likes it. She got it in Monarch Pass in Colorado, and it reminds her of a great day in the mountains, a picnic, and these little chipmunks that were so tame up there. This slide is blue and white, with a lot of different crystals, and colors, very deep blues, in circles inside circles. Like a target. It's really slick, she likes to run her hands over it. Except that the edges are rough, maybe volcanic rock. Well, what could happen to a rock slice like that? Okay, here's the story . . . suppose Jody wakes up in the middle of the night, and she's heard . . . uh, a noise...and she looks over at the little stand on her dresser and guess what, she's really scared, it's flashing this green-blue light . . ."

Students quickly sense missing details as they look at samples like those above, and they ask for those details as they look at each other's screens. For instance, some might ask, "What was the noise that woke Jody?" or "How did the bug get in the house?" At this point, the teacher can stop the students to show them that they are trying to help the narrative move toward completion.

Multimedia Enhancement

Such discussion activities are greatly enhanced by computer technology. To be able to type out quickly crowding impressions, and insert just as effortlessly missing details, ends drudgery and frees creating minds. At the end of this almost effortless activity, students have acquired a working knowledge of the essentials of narrative: its concrete quality, the flow of action from setting, object, character, the expected drive of narrative towards climax, and the resolutions of denouement. Although Elbow's activity can be performed in any number of ways, the ease and enhancement of multimedia lend it specificity, focus, and an enjoyable fast pace.

Self-paced practice is the last enhancement we will look at. When students can review and practice the elements they learn in class from audio-visual presentation, discussion and modeling, the critical reading and writing of narrative becomes much easier for them. As a way to facilitate this review and practice, we are using authoring software, namely *Toolbook for Windows*, to create self-paced modules dealing with critical thinking, research, literature, and the various modes of writing, including narrative. *Toolbook for Windows* is a cost effective way to allow teachers to work together as they customize intricate tutorials and even textbooks for students to use on their own after class, or in self-paced courses. This kind of software creates what could be called a post-structuralist text, where students can violate the teleological order most tutorials and books require students to follow. Clicking on a chosen button that allows students to jump ahead, or go back, or start in the middle of a module (Slatin, 1990).

Logistically, students will be able to check out a disk, or log onto a CD-ROM drive where they will have a screen in front of them that gives them various buttons they can click on with a mouse. If they are in the narrative module, they have a main menu with six buttons to choose ranging from "What is narrative non-fiction?" to "Narrative elements and readings" to "Exercises." Each of these buttons is programmed to go to a certain set of definitions, graphics, examples, questions, and readings that students can respond to and interact with directly on the screen.

For example, the student might decide to click on "What is narrative non-fiction?" A new screen then appears and the student can click on either

Table 1 Student Responses To CAI

ENGLISH 110 STUDENT QUESTIONNAIRE RESPONSES

SAMPLE QUESTIONS	VERY POOR	POOR	AVE.	GOOD	EXEL.
1. As a tool for writing, how do you rate Word Perfect?	0	1	10	24	65
2. As a way of sharing ideas, how would you rate Electronic Mail?	4	14	35	29	18
3. How do you rate the help you receive for grammar from software?	1	7	25	48	18
4. In revising your writing, how do you rate word processing?	0	1	17	36	46
5. How do you rate the usefulness of projected screen presentations?	1	4	23	53	19
6. How do you rate your current knowledge of narrative?	0	5	30	58	7

"What is Fiction?" or "What is Non-Fiction?" If they click on the first button, they will go to a screen that has two narrative examples. They are asked the question, "Which of these is fiction and why?" At the bottom of the screen, they can click on a button that opens up a word processor where they respond to the question. They can then click on a button which accesses other student responses to the same question, and if they like, they can respond to those responses much like they would with electronic mail. At any time they can back out and start again at the main menu. This small computerized excursion can be a fun way or students to rethink and practice the material they learned in class.

As the preliminary step in our own research and assessment of these techniques, we asked for student own responses to how they perceive the helpfulness of computers and multimedia as they learn about writing and as they write. Our hope is to gather such information at regular periods and through it target areas of needed improvement, as well as areas of established achievement, so that we can efficiently implement useful change. We are determined not to proceed blindly.

In creating the questionnaire, we were interested in the following categories: appraisals of curriculum, our computer and multimedia systems in general, individual skill growth, comparison to non-computer writing techniques, and comparison to other computer lab systems at UVSC. To summarize, 83 Freshman writing students were given a questionnaire with 27 questions dealing with the categories above. Although results of a single semester cannot be conclusive, and the self-report method may be flawed, the response so far has been mostly positive (Table 1).

The use of multimedia has been proven to be beneficial for students as they are able to more clearly understand concepts, see instructor and other student writing, access immediate feedback and questioning, and see more memorable multimedia presentations. These methods are also beneficial for faculty as they acquire more pedagogical variety, interact more equitably with students, and save, update, and share pedagogical ideas with other faculty.

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Leadership and Third-Order Change

Pamela Gardner

"Now my barn has burned down
I can see the moon more clearly."
Haiku

The world is experiencing a time where one age has died and a new one has yet to be born. Smith (1989) describes it as the Post-modern Age. Like Aquarius, it is a time of rebirth—a time of change and transition and new possibilities never before conceived. Harman (1990), author of *Global Mind Change*, believes that the culture is going through the most profound transformation since the scientific revolution—"shifting from separateness to wholeness, from a world view based on mechanics to one based on values. We must go back to the assumption that the physical world is separate from us. 'What if we rebuilt the whole structure on a different premise, . . . which is that everything is a oneness, everything is intercommunicating with everything else?'" (Kelly, 1992)

In an existence ruled by mechanics, there is no place for trust. Life is a happenstance of physical elements coming together in just the right combination which has probably never happened before and may probably never happen again. The universe is neither benign nor hostile—it just is. Why then should anyone trust it? "But in an existence based on oneness, trust is the ground of being: not simply a pleasant feeling or a way of approaching life, but the essence of life. We are literally all connected. . . . Force is the grammar of a mechanical world, cooperation the grammar of a unitary world" (Kelly, 1992).

Heart and Mind

The changes in society cannot be understood by the intellect alone. They must be felt in the heart. Members of Oriental societies have no difficulty conceiving of knowing in the heart and in the mind. The two, heart and mind, are not separate, but one. Even the Chinese character for heart and mind is the same and is called "heart/mind." Westerners, however, are less likely to trust those things which are felt in the heart unless there is objective proof which speaks to the intellect. In grasping the transformation now underway, people may start by gathering information and evidence of interconnectedness, "but we must end by feeling connected" (Kelly, 1992). However, before the present world is transformed and transcended, it must first endure the chaos, the void, from which new life springs.

The ancient Greeks believed that the god Chaos, and the goddess Gaia, the giver of life, existed before the creation of the world. It was through their union that all life was created out of the void.

Modern Westerners have come to view the world much differently than the Greeks. Logical, "right-thinking" people of the 18th, 19th and 20th centuries no longer believed in supernatural gods of any kind. Their god was the god of reason—devoid of supernatural powers and separate from anything called spirit. If God existed, He had long ago left the world to its own devices. The world was, after all, a giant machine, and when it broke, like all machines do, it was up to Man, not God, to fix it. Man could fix it through his reason and his science. And his science has done so much to create situations that need fixing. With the advent of the nuclear age and the destructive power of the atom bomb, Oppenheimer states that the scientists had known sin" (Palmer, 1983). It is interesting to note that the same knowledge source of the world's potential destruction, atomic theory and quantum mechanics, has also become a source of the world's potential salvation.

Newtonian physics describes a mechanical world. But quantum physics describes the universe as a living, self-organizing system. Newton said that at the core of all elements of the earth, including living systems, were molecules made up of

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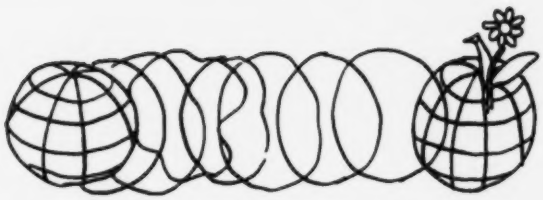

atoms—which he believed were the smallest building blocks of the elements. But Bohr, Eisenberg and Einstein were able to look inside the atom and find even smaller elements—neutrons, protons and electrons. As science's instruments have become more refined and accurate, scientists are able to see even smaller particles than previously imagined. And these particles behave differently depending on what the scientists are looking for. For example, sometimes light behaves as particles, and sometimes as waves. What is it? It is both.

The world inside the atom appears to be as vast as the world outside. Endless variety exists in the heart of the sub-atomic world. No longer do scientists describe the basic building blocks of the world as "things" but as relationships. Quantum physicists now describe sub-atomic elements as potentials of energy. It is only when two potentials of energy come together that scientists are able to observe "something happening" in the release of energy from the interaction of the two sources. Even electrons exhibit a sense of consciousness and "being" and in so doing, redefine what it means to be "living" (Wheatley, 1992).

The universe is now considered a living, self-organizing system which is radically different from the idea of a machine which can break and never be fixed or which decays and dies. Based on this new information, the way people think of institutions and their inhabitants has also changed. Institutions have a sense of cognition and life separate from the people who live and work within their boundaries. Yet, it is the people who give the institution ardor and vitality. The institution, like the universe, has "potentials of energy" which must come in contact with other "potentials of energy" for something to happen.

In Newtonian physics, the world must remain in a state of stasis, unchanged and unchanging in order to be complete and whole. Any deviation from the pre-determined conditions must immediately be "fixed" or the entire system will become chaotic, collapse, entropy and die. The Newtonian view of the world has made people hesitant, even afraid, of change.

Change and Chaos

How different is the quantum view of chaos and change. While equilibrium is part of the process experienced by a system, it is only one part. A system must also go through turbulence, change and chaos because these stages are necessary parts of the *growth* process. Self-organizing systems must experience turbulence, change and chaos since it is out of chaos that a totally new level of existence is born. Much like the ancient myth of the Phoenix, it is only out of the ashes, the chaos of the burning of the old bird, that the new Phoenix can arise.

Part of the discomfort of chaos has been the un-predictability of the process because of the previous inability of science to see limits and boundaries. With new super-computers, scientists are now able to see that chaos does have boundaries. In fact, the mathematical formulas for chaos create beautiful new patterns and forms. The boundaries are often intricate patterns as the dance between chaos and order is played out on the computer (Wheatley, 1992).

The boundaries between order and chaos develop as the computer plots individual points on a grid. No point is the same. At first the points seem random; however, as the formulas unfold, the patterns and boundaries become apparent. Two of these patterns have been named fractals (which are also found abundantly in nature such as in the repetitive pattern of a fern) and strange attractors.

Unlike Newtonian physics which fears chaos as unpredictable and a precursor of entropy, Quantum physics embraces chaos as part of the natural growth process, out of which comes a new level of existence. All self-organizing systems are subject to the effects of chaos—it is not something to be feared but rather experienced.

In the Newtonian, mechanistic view of the world which is pervasive, the universe is a hostile place when it undergoes change. By accepting chaos as a fearful place, most systems and organisms with-

in those systems have resisted or rejected change as harmful, even deadly, when, in fact, chaos and the resulting change are essential for the continuing life of the system or organism.

How different is the view of the world espoused by Kelly in "The Warm Winds of April," (1992).

> In a more transcendent sense, there have been moments when I've felt the earth itself supporting me. There's a kind of personal mantra I use in moments of fear, saying "I feel the earth beneath me, I feel it hold me up." I think of it as a metaphor, but there was a time that metaphor came to life. It was one afternoon years ago in the desert outside Albuquerque. Some friends and I had climbed to the top of a mesa and as far as we could see in every direction, there wasn't a sign of civilization: no cars or voices, no hum of electricity—only the vast silence of the desert and the sky. I became aware, then, of a rich and subtle humming, picked up not by my ears but by my body. I had a visceral feeling of the earth's presence, the way I might feel the presence of another body. And I remember saying: "It feels like love." (pp. 6-7)

Previous management theories have held tenaciously to the mechanical view of the world and the necessity of maintaining the status quo, attempting to keep the organization controlled and within bounds. Organizations have even tried to find ways to become more effective and efficient by minimizing or eliminating the "people factor." Schools have even tried to become "teacher-proof," all the while eliminating the very elements of relationships, people, chaos and change which would allow the system to evolve, blossom and grow.

Leaders in the 21st Century must find new ways of embracing chaos and change. Most change theories identify two types of change: a first-order change which is a change only in the words used to describe an organization, and a second-order change which is a change in the policies and procedures of an organization. One would argue that there is a third-order change—a change in the heart of the organization.

Healing through Dance

Deal (1990) asserts that society can restore the heart of education through collective dance and ritual. Through such activities the individual connects with the creative consciousness and feels one with the universe. Other primitive cultures have guides who help them make such connections. These lay guides, called shamans, are individuals who have themselves been healed and can now help others to heal. Leaders who function as shamans can guide their organizations through chaos into a transcendent state of renewal (Egri and Frost, 1991). Such leadership is a movement in time, a dance, if you will, a grand ball with all elements coming together in a holistic union of time, space, belief, principle, practice and participants.

The dance becomes the metaphor for change as the dancer becomes the instrument of creation. "In dance, the dramatization of human experience is enacted through movements, through a subjective and visual elaboration of the messages of the body" (John-Steiner, 1985).

> The act of dancing goes beyond the mere anatomical and physiological elements of human movement potential and unfolds the subjectivized landscape of the mind at the moment of creation. . . .Under its shade, the aesthetic and scientific factors combine in the dance as a holistic human experience . . . of the integration of mind and body. (Torino, 1991, pp. 203-204)

It is an attempt to discover the steps and the inherent rhythm of "Earth Song" as all become participants and begin to move as part of the eternal dance between order and chaos—redefining the boundaries of those two symbiotic, life-giving forces, like the edges of a fractal—creating new relationships of limitless and wondrous beauty and possibility as leaders and followers and leaders of leaders.

> In my reflective notes, I recount such an experience: On returning to the division chair's position after a two-year assignment on a Title III Grant, I found my division in the chaos Deal (1990) describes. Faculty unity and coherence were rift with seismic fault lines. There were camps of old versus new faculty, writing versus humanities faculty, tenured versus non-tenured faculty, single versus married faculty, "I like this book, you like that book" faculty. On almost any issue, curriculum, book selection, competence in the classroom, innovation, creativity, etc. *ad nauseam*, they were divided. My first instinct was to get things organized and managed the mess. But as I thought about what Deal wrote, I decided to try a different approach. Rather than

"getting tough and taking charge," I tried to orchestrate an activity where people could heal.

Instead of the usual non-productive, deathly-boring division meeting, I hired a caterer to prepare a Greek luncheon. I also hired a consultant to teach us to Greek dance. And we danced!

At first, people tentatively held hands and tried to learn the steps. Many of us hadn't danced in years and felt self-conscious and afraid that others would laugh. And we did laugh. And we ran into each other, and we mixed up the steps, and we laughed. And as we touched and danced and laughed, we started to heal. For an hour and a half, middle-aged humanities faculty experienced the most enriching division meeting of their lives as they grew closer together through the healing ritual of dance.

Many were disappointed that we didn't dance longer. After the dance, others continued their discussion at a local meeting place while others stayed to clean the area and stack tables and chairs (something they weren't expected to do). Someone put a note by the copier: "If I can walk, I can dance; If I can talk, I can sing. Native American Proverb."

I received notes, even letters, about how important the activity was to people. And I received many personal "thanks" from faculty and staff. Even four months later, faculty were sharing the enthusiasm of their experience with others both inside and outside the department.

I see a new feeling of cooperation and unity. I see a new willingness to consider others' opinions. I see people revealing their vulnerabilities. I see faculty willing to accept greater responsibility for activities in the division. I see the seeds of healing.

In conclusion, change is possible, but significant change will come only through a holistic union of the currently dichotomized parts of humanness. Self-organizing systems which recognize the unique contribution each member makes can survive, even thrive, in chaos when they cease fearing the future and establish principles and practices which celebrate people.

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CALL FOR PAPERS 1994

Faculty of Utah community colleges are invited to submit articles for inclusion in FOCUS, an annual forum on teaching and learning in Utah two-year institutions of higher education. The Editorial Board will also consider articles submitted by administrators, staff, students, and others addressing topics of interest to Utah community colleges.

Subject: Manuscripts may deal with curriculum, theory, research, teaching strategies, instructional models, student issues, faculty concerns, advocacy, governance, or any matters pertinent to Utah community colleges.

Format: Manuscripts should be typed, double spaced, and concisely written in about 2,000 to 3,000 words or less. **They must be submitted with hard copy and floppy disk in standard word processing format.**

Deadline: Manuscripts are Due April 8, 1994 to the campus Editorial Board representative and April 15, 1994 to the Editor in the Commissioner's Office, 3 Triad Center, Suite 550, Salt Lake City, Utah 84180-1205.

Review of Articles: The Editorial Board of FOCUS, designated by the faculty associations of Utah's five community colleges, will review all manuscripts and determine which articles will be included in the journal. Consideration will be given to both the subject matter presented and the quality of the presentation.

Publication Date: September, 1994

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